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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION OF:

RICHARD ANCIMER, and
KONSTANTIN TANIN

SERIAL NO. 10/679,766

FILED: OCTOBER 6, 2003

FOR: METHOD AND APPARATUS
FOR PILOT FUEL
INTRODUCTION AND
CONTROLLING COMBUSTION
IN GASEOUS-FUELLED
INTERNAL COMBUSTION
ENGINE

GROUP ART UNIT: Not yet assigned

EXAMINER: Not yet assigned

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this date:

January 16, 2004

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Attorney for Applicants

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants submit herewith Form PTO-1449 listing all of the references cited, as well as a copy of each of the foreign documents and other publications cited, for consideration by the

U.S. Patent and Trademark Office in connection with the above application.

<u>U.S. Patent No.</u>	<u>Inventor(s)</u>	<u>Issue Date</u>
4,694,802	Lowi, Jr.	09/87
4,768,481	Wood	09/88
5,060,610	Paro	10/91
5,205,254	Ito et al.	04/93
5,482,016	Ohishi et al.	01/96
5,832,880	Dickey	11/98
5,875,743	Dickey	03/99
5,996,558	Ouellette et al.	12/99
6,032,617	Willi et al.	03/00
6,095,102	Willi et al.	08/00
6,202,601	Ouellette et al.	03/01
6,386,177	Urushihara et al.	05/02
6,412,469	Itoyama et al.	07/02
6,484,689	Hasegawa	11/02
6,491,016	Buratti	12/02

<u>Foreign Document No.</u>	<u>Country</u>	<u>Publication Date</u>
WO 98/10179	PCT	03/98
WO 00/28197	PCT	05/00
WO 00/28198	PCT	05/00

<u>Publication</u>	<u>Author</u>	<u>Date</u>
"The Stratified Charge Glowplug Ignition (SCGI) Engine with Natural Gas Fuel," <i>SAE</i> <i>Technical Paper Series</i> 911767	Thring et al.	00/91

<u>Publication</u>	<u>Author</u>	<u>Date</u>
"Hybrid Combustion Engine With Premixed Gasoline Homogeneous Charge And Ignition By Injected Diesel Fuel - Exhaust Emission Characteristics," <i>SAE Technical Paper Series 940268</i> , pp. 1451-61	Yonetani et al.	02/94
"Exhaust Purification of Diesel Engines by Homogeneous Charge with Compression Ignition Part 1: Experimental Investigation of Combustion and Exhaust Emission Behavior Under Pre-Mixed Homogenous Charge Compression Ignition Method," <i>SAE Technical Paper Series 970313</i>	Suzuki et al.	02/97
"Exhaust Purification of Diesel Engines by Homogenous Charge with Compression Ignition Part 2: Analysis of Combustion Phenomena and NO _x Formation by Numerical Simulation with Experiment," <i>SAE Technical Paper Series 970315</i>	Ishii et al.	02/97

<u>Publication</u>	<u>Author</u>	<u>Date</u>
"Modeling of Homogenous Charge Compression Ignition (HCCI) of Methane," <i>Lawrence Livermore National Laboratory UCRL-JC-127387</i>	Smith et al.	05/97
"Homogenous Charge Compression Ignition (HCCI) Using Isooctane, Ethanol and Natural Gas- A Comparison with Spark Ignition Operation," <i>SAE Technical Paper Series 972874</i>	Christensen et al.	10/97
"Combustion Control Method of Homogenous Charge Diesel Engines," <i>SAE Technical Paper Series 980509</i>	Suzuki et al.	02/98
"Supercharged Homogenous Charge Compression Ignition," <i>SAE Technical Paper Series 98087</i>	Christensen et al.	02/98
"Influence of Mixture Quality on Homogenous Charge Compression Ignition," <i>SAE Technical Paper Series 982454</i>	Christensen et al.	10/98

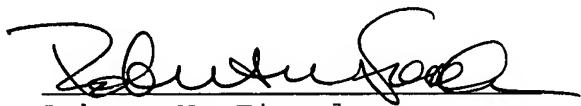
<u>Publication</u>	<u>Author</u>	<u>Date</u>
"Homogenous Charge Compression Ignition with Water Injection," <i>SAE Technical Paper Series</i> 2000-01-0182	Christensen et al.	03/99
"HCCI in a CFR Engine: Experiments and Detailed Kinetic Modeling," <i>SAE Technical Paper Series</i> 2000-01-0328	Flowers et al.	03/00
"Experimental Study of CI Natural-Gas/DME Homogenous Charge Engine," <i>SAE Technical Paper Series</i> 2000-01-0329	Chen et al.	03/00
"HCCI Engine Control by Thermal Management," <i>SAE Technical Paper Series</i> 2000-01-2869	Martinez-Frias et al.	10/00
"Demonstration of HCCI Using a Single Cylinder Four-Stroke SI Engine with Modified Valve Timing," <i>SAE Technical Paper Series</i> 2000-01-2870	Kontarakis et al.	10/00

The above references are listed on the enclosed Form PT01449 entitled "Information Disclosure Citation."

This Information Disclosure Statement is being submitted before the receipt of a first Office Action on the merits of the application.

Please charge any fees incurred in connection with this submission to Deposit Account No. 13-0017 in the name of McAndrews, Held & Malloy, Ltd.

Respectfully submitted,



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Dated: January 16, 2004

Form PTO-1449 (Rev. 8-83) (modified)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 13020US02	SERIAL NO. 10/679,766
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)		APPLICANT(s): Ancimer et al.	
		FILING DATE October 6, 2003	GROUP ART UNIT:



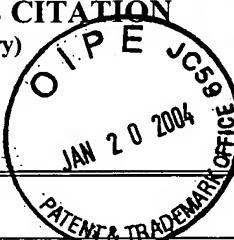
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		4,694,802	09/87	Lowi, Jr.	123	431	
		4,768,481	09/88	Wood	123	254	
		5,060,610	10/91	Paro	123	300	
		5,205,254	4/93	Ito et al.	123	305	
		5,482,016	1/96	Ohishi et al.	123	299	
		5,832,880	11/98	Dickey	123	25	
		5,875,743	03/99	Dickey	123	25	
		5,996,558	12/99	Ouellette et al.	123	506	
		6,032,617	03/00	Willi et al.	123	27	
		6,095,102	08/00	Willi et al.	123	27	
		6,202,601	03/2001	Ouellette et al.	123	27 GE	
		6,386,177	05/2002	Urushihara et al.	123	299	
		6,412,469	07/2002	Itoyama et al.	123	299	
		6,484,689	11/2002	Hasegawa	123	299	
		6,491,016	12/2002	Buratti	123	299	

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NO.	PUBLICATION DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
							YES NO
		WO 98/10179	03/98	PCT			
		WO 00/28197	05/00	PCT			
		WO 00/28198	05/00	PCT			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
		Thring et al., "The Stratified Charge Glowplug Ignition (SCGI) Engine with Natural Gas Fuel," <i>SAE Technical Paper Series 911767</i> , 1991.
		Yonetani et al., "Hybrid Combustion Engine With Premixed Gasoline Homogeneous Charge And Ignition By Injected Diesel Fuel – Exhaust Emission Characteristics," <i>SAE Technical Paper Series 940268</i> , pp. 1451-61, February, 1994.

EXAMINER	DATE CONSIDERED:
*EXAMINER: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Form PTO-1449 (Rev. 8-83) (modified)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 13020US02	SERIAL NO. 10/679,766
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		Suzuki et al., "Exhaust Purification of Diesel Engines by Homogeneous Charge with Compression Ignition Part 1: Experimental Investigation of Combustion and Exhaust Emission Behavior Under Pre-Mixed Homogenous Charge Compression Ignition Method," <i>SAE Technical Paper Series 970313</i> , February, 1997.	
		Ishii et al., "Exhaust Purification of Diesel Engines by Homogenous Charge with Compression Ignition Part 2: Analysis of Combustion Phenomena and NOx Formation by Numerical Simulation with Experiment," <i>SAE Technical Paper Series 970315</i> , February, 1997.	
		Smith et al., "Modeling of Homogenous Charge Compression Ignition (HCCI) of Methane," <i>Lawrence Livermore National Laboratory UCRL-JC-127387</i> , May, 1997.	
		Christensen et al., "Homogenous Charge Compression Ignition (HCCI) Using Isooctane, Ethanol and Natural Gas- A Comparison with Spark Ignition Operation," <i>SAE Technical Paper Series 972874</i> , October, 1997.	
		Suzuki et al., "Combustion Control Method of Homogenous Charge Diesel Engines," <i>SAE Technical Paper Series 980509</i> , February, 1998.	
		Christensen et al., "Supercharged Homogenous Charge Compression Ignition," <i>SAE Technical Paper Series 98087</i> , February, 1998.	
		Christensen et al., "Influence of Mixture Quality on Homogenous Charge Compression Ignition," <i>SAE Technical Paper Series 982454</i> , October, 1998.	
		Christensen et al., "Homogenous Charge Compression Ignition with Water Injection," <i>SAE Technical Paper Series 1999-01-0182</i> , March, 1999.	
		Flowers et al., "HCCI in a CFR Engine: Experiments and Detailed Kinetic Modeling," <i>SAE Technical Paper Series 2000-01-0328</i> , March, 2000.	
		Chen et al., "Experimental Study of CI Natural-Gas/DME Homogenous Charge Engine," <i>SAE Technical Paper Series 2000-01-0329</i> , March, 2000.	
		Olsson et al., "Experiments and Simulation of a Six-Cylinder Homogenous Charge Compression Ignition (HCCI) Engine," <i>SAE Technical Paper Series 2000-01-2867</i> , October, 2000.	
		Martinez-Frias et al., "HCCI Engine Control by Thermal Management," <i>SAE Technical Paper Series 2000-01-2869</i> , October, 2000.	
		Kontarakis et al., "Demonstration of HCCI Using a Single Cylinder Four-Stroke SI Engine with Modified Valve Timing," <i>SAE Technical Paper Series 2000-01-2870</i> , October, 2000.	

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